

---

## GENERAL DISCUSSION: SESSION III\*

HARRY HOVEY, P.E., *moderator*

New York State Department of Environmental Conservation  
Albany, New York

T. E. GRAEDEL, Ph.D., and BERNARD GOLDSTEIN, M.D.

DR. HERBERT SCHIMMEL (Albert Einstein College of Medicine): Dr. Graedel, when you compared the weekend with the four intermediate days, did you take the maximum of the four days or the average maximum of the four days to compare to the average maximum of the two days?

DR. GRAEDEL: For each individual day we selected the maximum value, and all those individual days were stacked up to make one distribution and on the other side to make the other distribution, and those are the points that were compared. So there is no averaging of those points. It is the sum of the individual one-day values that comprise the group of points that are compared, point by point, with the other set.

DR. SCHIMMEL: Then you only had 100 weekend points and 200 intermediate day points.

DR. GRAEDEL: That is right. One distribution is twice as large as the other. Instead of comparing point by point, one compares percentile by percentile so that the median value of one distribution is compared with the median value of the other, the upper quartile with the upper quartile, etc.

DR. SCHIMMEL: Then the extreme on a 200 distribution should be higher than on a 100.

DR. GRAEDEL: That is right.

DR. SCHIMMEL: Therefore, some of that effect was simply the artifact of statistics.

DR. GRAEDEL: If one looks at the extreme values, one may get a different effect than if one looks at the middle 50%, but the middle 50% still shows the effect quite clearly.

---

\*Presented as part of a *Symposium on Health Aspects of Automotive Emissions* sponsored by the Subcommittee on Environmental Health of the Committee on Public Health of the New York Academy of Medicine and held at the Academy May 15 and 16, 1980.